[COUNSEL LISTED ON NEXT PAGE]

UNITED STATES DISTRICT COURT

CENTRAL DISTRICT OF CALIFORNIA

EASTERN DIVISION

LOUIS A. COFFELT, JR.,

Plaintiff,

v.

NVIDIA CORP., AUTODESK, INC., PIXAR,

Defendants.

Case No. 5:16-cv-00457-SJO-KK

MEMORANDUM OF POINTS AND AUTHORITIES IN SUPPORT OF DEFENDANTS' MOTION TO DISMISS PURSUANT TO FED. R. CIV. P. 12(b)(6) FOR LACK OF PATENTABLE SUBJECT MATTER UNDER 35 U.S.C. § 101

Date: June 20, 2016
Time: 10:00 a.m.
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I. INTRODUCTION

The Complaint filed by Plaintiff Louis Coffelt asserting U.S. Patent No. 8,614,710 ("'710 patent") is a textbook case of patent claims directed to a patent-ineligible abstract idea under 35 U.S.C. § 101. The claims of the '710 patent are directed to nothing more than using mathematical algorithms executed on a conventional, generic computer. *See Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2358 (2014) ("the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent eligible invention"). Because this defect is apparent on the face of the Complaint as a matter of law, without the need for any discovery or claim construction, and cannot be cured by any amendment of the pleading, Defendants Autodesk, Inc., NVIDIA Corporation, and Pixar hereby move to dismiss the Complaint with prejudice.[1]

II. STATEMENT OF FACTS

A. '710 Patent

The '710 patent, titled "Method for deriving pixel color using steradians," issued December 24, 2013 from an application filed August 22, 2011. *See* Compl. Ex. 1. Consistent with its title, the '710 patent contains six claims directed to "[a] method for deriving a pixel color" using a generic "computer" to mathematically analyze a "geometric graphic object" (*e.g.*, spheres, lines, and planes) in a "steradian region of space." *See* '710 patent, claims 1-6; *see also* Abstract ("Methods of the present invention include mathematical structure analysis of

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[1] Defendants do not waive and reserve their rights to move to sever for improper joinder based on Plaintiff improperly filing one action against three unrelated defendants. *See* 35 U.S.C. § 299 (proper joinder requires claims against defendants that arise out of "the same transaction, occurrence, or series of transactions, or occurrences relating to the making, using, importing into the United States, offering for sale, or selling of the same accused product or process"); *see also* Compl. at 4 ("NOTICE OF SEPARATE ACTIONS 19. This complaint filed by Coffelt … is essentially 3 separate actions against the 3 defendants Nvidia, Autodesk, and Pixar.").

geometric graphic objects."). The claimed mathematical analysis includes calculating a steradian region of space,[2] calculating and comparing the lengths of two position vectors located in the particular steradian of space, and deriving a pixel color from the result of the comparison. *See* '710 patent, claim 1; *see also* Abstract ("This analysis includes using a particular steradian region of space; and two position vectors located in the particular steradian region of space; and comparing the length of the position vectors; and deriving a pixel color from a result of the length comparison.").

The '710 patent contains one independent claim (claim 1) and five dependent claims (claims 2-6). Claim 1 recites the following eleven steps:

1. A method for deriving a pixel color comprising the steps of:
   (1) a computer calculating a first position vector for a geometric graphic object;
   (2) a computer calculating a particular steradian region of space;
   (3) a computer calculating a particular steradian radius of said steradian region of space;
   (4) a computer calculating that said first position vector is located in said particular steradian region of space;
   (5) a computer calculating a second position vector for a geometric graphic object;
   (6) a computer calculating that said second position vector is located in said particular steradian region of space;
   (7) a computer calculating a length of said first position vector;
   (8) a computer calculating a length of said second position vector;
   (9) a computer comparing said first length to said second length;
   (10) for a first pixel, a computer deriving a pixel color for said first position vector from a result of said length comparison;
   (11) for a second pixel, a computer deriving a pixel color for said second position vector from a result of said length comparison.

See '710 patent at 13:9-14:6 (underlining and numbering of steps (1)-(11) added).

[2] A steradian ("sr") is a measurement unit of angular space. *See* '710 patent at 2:46-47, Fig. 1. For example, there can be 4 π ("pi") or approximately 12.5664 sr in a sphere.

B. Prosecution History[3]

During prosecution of the '710 patent, the United States Patent and Trademark Office ("PTO") rejected the pending claims, which at that time did not contain the "computer" element underlined above, as lacking patent-eligible subject matter:

> gathering or outputting, is not sufficient to pass the test. In the instant invention, a pixel color is derived mathematically using vectors in a particular steradian region. The calculations claimed can be done by a human mentally or with a pen and paper. There is no machine claimed for performing the calculations, nor do the claims inherently require one.

See Office Action of Jan. 31, 2013 at 2-3 (highlighting added). In response, Mr. Coffelt amended the claims to add a generic machine element to perform the claimed mathematical calculations.[4] *See* Am. of Mar. 3, 2013 at 1. The PTO again rejected the amended claims under 35 U.S.C. § 101[5]:

> gathering or outputting, is not sufficient to pass the test. In the instant invention, a pixel color is derived mathematically using vectors in a particular steradian region. There is no *specific* machine claimed for performing the calculations, nor do the claims inherently require one.

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[3] Contemporaneously with this motion, Defendants are filing a request for judicial notice of the entire prosecution history of the '710 patent, a copy of which is attached as Exhibit A to the request. *See* ECF No. 32. All citations to the prosecution history below are to ECF No. 32 Ex. A.

[4] Mr. Coffelt also canceled two dependent claims and added a new dependent claim 5 which recited "The method for deriving a pixel color according to claim 1 where said machine is an electronic computer." *See* Am. of Mar. 3, 2013 at 2 (emphasis added).

[5] The PTO did not reject on Section 101 grounds dependent claim 5, which recited an "electronic computer" for performing the claimed steps. *See* Final Office Action of May 28, 2013 at 3.

See Final Office Action of May 28, 2013 at 3 (highlighting added). In response, Mr. Coffelt further amended the rejected claims, replacing the word "machine" with "computer":

> Claim 1 (amended) A method for deriving a pixel color comprising the steps of:
> a ~~machine~~ computer calculating a first position vector for a geometric graphic object;
> a ~~machine~~ computer calculating a particular steradian region of space;
> a ~~machine~~ computer calculating that said first position vector is located in said particular steradian region of space;
> a ~~machine~~ computer calculating a second position vector for a geometric graphic object;
> a ~~machine~~ computer calculating that said second position vector is located in said particular steradian region of space;
> a ~~machine~~ computer calculating a length of said first position vector;
> a ~~machine~~ computer calculating a length of said second position vector;
> a ~~machine~~ computer comparing said first length to said second length;
> for a first pixel, a ~~machine~~ computer deriving a pixel color for said first position vector from a result of said length comparison;
> for a second pixel, a ~~machine~~ computer deriving a pixel color for said second position vector from a result of said length comparison.

See 2d Am. of June 6, 2013 at 1. The PTO then issued an Advisory Action stating, "Applicant's reply has overcome the … 35 USC 101 rejection of claims 1 and 2." *See* Advisory Action of July 11, 2013 at 1.

The PTO subsequently allowed the claims as amended and issued the patent on December 24, 2013.[6] *See* Notice of Allowance of Aug. 23, 2013. Six months later, on June 19, 2014, the Supreme Court expressly prohibited this basis for patent eligibility, holding that "the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention." *See Alice*, 134 S. Ct. at 2358 ("if a patent's recitation of a computer amounts to a mere instruction to

[6] Mr. Coffelt further amended the claims to address prior art and added three new dependent claims, resulting in the six claims that ultimately issued. *See* 3d Am. of July 22, 2013 at 1-2.

implement an abstract idea on a computer, that addition cannot impart patent eligibility").

III. ARGUMENT

A. Whether the Asserted Patent Lacks Patentable Subject Matter Under 35 U.S.C. § 101 Should Be Resolved at This Stage Before the Parties Incur Additional Unnecessary Litigation Expense

The issue of whether the claims of a patent recite patent-eligible subject matter as required by 35 U.S.C. § 101 may properly be resolved on a motion to dismiss under Fed. R. Civ. P. 12(b)(6). *See, e.g., Content Extraction & Transmission LLC v. Wells Fargo Bank*, 776 F.3d 1343 (Fed. Cir. 2014) (affirming district court's granting of Rule 12(b)(6) motion to dismiss due to lack of patentable subject matter of patent-in-suit under § 101); *Secured Mail Solutions, LLC v. Universal Wilde, Inc.*, No. 2:15-cv-07562 (C.D. Cal. Feb. 16, 2016) (granting Rule 12(b)(6) motion due to lack of patentable subject matter of patent-in-suit under § 101). Claim construction is not required to conduct the § 101 analysis. *See, e.g., Content Extraction*, 776 F.3d at 1349 ("claim construction is not an inviolable prerequisite to a validity determination under § 101"); *Ultramercial v. Hulu, LLC*, 772 F.3d 709, 713, 719 (Fed. Cir. 2014) ("the district court properly invoked section 101 to dismiss Ultramercial's infringement suit on the pleadings. No formal claim construction was required"); *Genetic Techs., Ltd. v. Merial L.L.C.*, 2016 WL 1393573, at *3 (Fed. Cir. Apr. 8, 2016) ("evaluation of a patent claim's subject matter eligibility under § 101 can proceed even before a formal claim construction").

In evaluating a motion to dismiss under Rule 12(b)(6) for lack of patentable subject matter under § 101, courts consider the intrinsic record, including the patent at issue and its prosecution history. *See Tellabs, Inc. v. Makor Issues & Rights, Ltd.*, 551 U.S. 308, 322 (2007) ("[C]ourts must consider the complaint in its entirety, as well as other sources courts ordinarily examine when ruling on Rule

12(b)(6) motions to dismiss, in particular, documents incorporated into the complaint by reference, and matters of which a court may take judicial notice."); *Phillips v. AWH Corp.*, 415 F.3d 1303, 1317 (Fed. Cir. 2005) (*en banc*) ("The prosecution history, which we have designated as part of the 'intrinsic evidence,' consists of the complete record of the proceedings before the PTO").

It is particularly appropriate for the Court to consider the complete prosecution history in this case since Plaintiff has cited and attached portions as exhibits to the Complaint. *See, e.g.*, Compl. ¶ 69 (citing Exs. 16, 17); *Skilstaf, Inc. v. CVS Caremark Corp.*, 669 F.3d 1005, 1016 n.9 (9th Cir. 2012) ("Although, as a general rule, a district court may not consider materials beyond the pleadings in ruling on a Rule 12(b)(6) motion, one exception to this general rule is that a court may take judicial notice of matters of public record without converting a motion to dismiss into a motion for summary judgment, as long as the facts noticed are not subject to reasonable dispute"); *Branch v. Tunnell*, 14 F.3d 449, 454 (9th Cir. 1994), *overruled on other grounds by Galbraith v. Cnty. of Santa Clara*, 307 F.3d 1119, 1121 (9th Cir. 2002) ("[W]e hold that documents whose contents are alleged in a complaint and whose authenticity no party questions, but which are not physically attached to the pleading, may be considered in ruling on a Rule 12(b)(6) motion to dismiss.").

The Complaint should be dismissed, with prejudice, because the claims of the '710 patent are directed to an abstract idea, *i.e.*, a mathematical algorithm for deriving the color of a pixel, implemented on a conventional generic computer. *See Alice*, 134 S. Ct. at 2357 ("We conclude that the method claims, which merely require generic computer implementation, fail to transform that abstract idea into a patent-eligible invention."); *Gottschalk v. Benson*, 409 U.S. 63, 71-72 (1972) ("The mathematical formula involved here has no substantial practical application except in connection with a digital computer, which means that if the judgment below is affirmed … in practical effect would be a patent on the algorithm itself"). Prior to

Alice, the PTO deemed the '710 patent claims patent-eligible under Section 101 only because the claims were amended to recite a generic "computer," as set forth above. Now that the Supreme Court has specifically addressed this issue, that reciting a generic "computer" cannot confer patent-eligibility, the '710 patent is invalid as unpatentable.

B. The Claims of the '710 Patent Are Directed to an Abstract Idea

The first step of the *Alice* test considers whether the claims of the patent are directed to an abstract idea. *See Alice*, 134 S. Ct. at 2355 (the first step in the *Alice* analysis is to "determine whether the claims at issue are directed to one of those patent-ineligible concepts," such as an "abstract idea"). It is well established that a mathematical formula or algorithm is an abstract idea. *See Parker v. Flook*, 437 U.S. 584, 595 (1978) ("if a claim is directed essentially to a method of calculating, using a mathematical formula, even if the solution is for a specific purpose, the claimed method is nonstatutory").

1. The Claims Are Directed Only to a Mathematical Algorithm

The steps recited in method claim 1 merely express a mathematical algorithm.

Steps (1)-(6) of claim 1 calculate a first and second vector, calculate a steradian region space, and then determine whether the first and second vectors are located in the steradian region space. *See* '710 patent, claim 1. The specification describes these steps to be a "mathematical relationship" between the vectors and a particular steradian space, as illustrated by Figs. 1-4 of the '710 patent. *See id*. at 3:64-4:3 ("The description of FIG. 1, FIG. 2, FIG. 3, and FIG. 4 illustrates a method to derive ***a mathematical relationship*** between a particular position vector and a particular steradian … determine whether a particular position vector is located in a particular steradian … determine whether two position vectors are both located in one particular steradian") (emphasis added).

The specification states that the "mathematical calculations" set forth in the

patent "may be executed by various computer programming languages." '710 patent at 5:21-23. The specification provides an illustration where the mathematical algorithm of steps (1)-(6) is implemented in one exemplary programming language (c++) on a generic computer. *See id*. at 11:39-12:23 ("Calculating a Position Vector of a Geometric Structure … Calculating a Particular Steradian Region of Space … The Position Vector is Located in One Particular Steradian Region of Space …"); *see also Intellectual Ventures I LLC v. Erie Indemnity Co.*, 2015 U.S. Dist. LEXIS 129153, at * 95 (W.D. Pa. Sept. 25, 2015) ("Using mathematical equations or code sequences … and implementing those code sequences on a generic computer does not make the underlying idea to which the Patent is directed any less abstract.").

Steps (7)-(11) of claim 1 calculate and compare the lengths of the first and second vectors and derive color information for the two vectors depending on the comparison of the lengths of the two. *See* '710 patent at 13:23-14:6. The specification describes these steps to be "mathematical calculations," as illustrated by Fig. 6 of the '710 patent. *See id*. at 5:4-23 ("The structure analysis comprises: a.) calculating a particular position vector (23) and a particular position vector (24); b.) calculating the length of position vector (23) and the length of position vector (24); c.) comparing the length of position vector (23) to the length of position vector (24); d.) declaring a point light source is located at the origin of the coordinate system; e.) deriving a pixel color from a result of the length comparison … the ***mathematical calculations*** set forth herein") (emphasis added).

The specification also describes the mathematical algorithm of steps (7)-(11) as being implemented by an exemplary programming language (c++) on a generic computer. *See id*. at 12:24-63 ("Calculating a Length of a Position Vector … Comparing a First Position Vector Length to a Second Position Vector Length … Deriving a Pixel Color From a Result of the Position Vector Length Comparison"); *see also Intellectual*, 2015 U.S. Dist. LEXIS 129153, at *95 (implementing

mathematical equations or code sequences on generic computer not patentable).

Because claim 1 only recites steps that constitute a mathematical algorithm to manipulate existing information (vectors, steradian region, the spatial relationship between the vectors and the steradian region, and the length relationship between the two vectors) to generate additional information (color information of the vectors), the claimed invention is a patent ineligible abstract idea. *See Digitech Image Techs., LLC v. EFI, Inc.*, 758 F.3d 1344, 1351 (Fed. Cir. 2014) ("Without additional limitations, a process that employs mathematical algorithms to manipulate existing information to generate additional information is not patent eligible.").

In fact, this claim recites a series of steps that are quite similar to those in method claim 8 that the Supreme Court determined to be patent ineligible in *Benson*.[7] Both claims recite a mathematical algorithm to manipulate existing data to generate additional data. Claim 1 of the '710 patent mathematically calculates and determines the vector information to generate color information, and claim 8 of the *Benson* patent mathematically calculates binary information to convert Binary Coded Decimal (BCD) numerals into Binary numerals.[8] Both are unpatentable as

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[7] Claim 8 of *Benson* recites: "8. The method of converting signals from binary coded decimal form into binary which comprises the steps of: (1) storing the binary coded decimal signals in a reentrant shift register, (2) shifting the signals to the right by at least three places, until there is a binary '1' in the second position of said register, (3) masking out said binary '1' in said second position of said register, (4) adding a binary '1' to the first position of said register, (5) shifting the signals to the left by two positions, (6) adding a '1' to said first position, and (7) shifting the signals to the right by at least three positions in preparation for a succeeding binary '1' in the second position of said register." *See Benson*, 409 U.S. at 73-74.

[8] Similar to *Benson*, the '710 patent claims only recite use of an abstract mathematical formula on any general purpose computer. *Cf. Enfish, LLC v. Microsoft Corp.*, No. 2015-1244, slip op. at 17 (Fed. Cir. May 12, 2016) (claims that are directed to specific improvement to computer functionality may be patent eligible); *see also buySAFE, Inc. v. Google Inc.*, 765 F.3d 1350, 1354 (Fed. Cir. 2014) (generic computer implementation cannot convert abstract idea into

they recite nothing more than a series of steps to execute a mathematical algorithm. *See Benson*, 409 U.S. at 67 (mathematical algorithm is "the basic tools of scientific and technological work").

Thus, the mathematical algorithm used for calculating pixel color in claim 1 of the '710 patent is not patent-eligible under Section 101. *See Parker*, 437 U.S. at 595 n.18 ("Very simply, our holding today is that a claim for an improved method of calculation, even when tied to a specific end use, is unpatentable subject matter under § 101.").

2. The Prosecution History Confirms That the Claims of the '710 Patent Are Merely Directed to Mathematical Calculations

The prosecution history further confirms that the recited steps in method claim 1 constitute a mathematical algorithm. As shown above, the PTO twice rejected the pending claims as abstract ideas because "[i]n the instant invention, a pixel color is derived ***mathematically*** using vectors in a particular steradian region." *See* Office Action of January 31, 2013 at 2 (emphasis added); Final Office Action of May 28, 2013 at 3 (emphasis added). The PTO also stated that the pending claims are abstract because the mathematical "calculations claimed can be done by a human mentally or with a pen and paper." *See* Office Action of Jan. 31, 2013 at 2; *Cybersource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1372, 1373 (Fed. Cir. 2011) ("a method that can be performed by human thought alone is merely an abstract idea and is not patent-eligible under § 101").

After the PTO's final rejection on the grounds that "[t]here is no ***specific*** machine claimed for performing the calculations, nor do the claims inherently require one," *see* Final Office Action of May 28, 2013 at 3 (emphasis in original), Mr. Coffelt amended the claims to simply add a generic "computer" to perform the

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patentable subject matter).

claimed mathematical calculations. *See* 2d Am. of June 6, 2013 at 1. He further argued that the support of his amendment lies in column 5, lines 21-23 of the specification which states that the claimed "mathematical calculations … may be executed by various computer programming languages, e.g. … c++" because "[i]t is inherent that c++ programs are executed on an electronic computer." *See* Basis for Subject Matter of Mar. 3, 2013 at 1.

A generic computer on which ***any*** programming language can be executed cannot confer patent eligibility under *Alice*. Therefore, Plaintiff's lone addition of "computer" to a mathematical algorithm is tantamount to "[s]tating an abstract idea while adding the words 'apply it with a computer,'" which "cannot transform a patent ineligible abstract idea into a patent eligible invention." *See Alice*, 134 S. Ct. at 2358 ("[T]he mere recitation of a generic computer cannot transform a patent ineligible abstract idea into a patent eligible invention."); *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333-34 (Fed. Cir. 2012) ("Simply adding a 'computer aided' limitation to a claim covering an abstract concept, without more, is insufficient to render the claim patent eligible."). Indeed, if Mr. Coffelt's claim amendment to recite a generic "computer" had been filed ten months later, the PTO's revised post-*Alice* guidelines would have prohibited the issuance of the claims. *See* 2014 PTO Interim Guidance on Patent Subject Matter Eligibility, https://www.gpo.gov/fdsys/pkg/FR-2014-12-16/pdf/2014-29414.pdf, at 7 (Dec. 16, 2014) ("Limitations that were found not to be enough to qualify as 'significantly more' when recited in a claim with a judicial exception include … mere instructions to implement an abstract idea on a computer.").

C. The Claims of the '710 Patent Lack Any Inventive Concept That Goes Beyond the Abstract Idea Itself

The asserted claims also fail the second step of the *Alice* test because they contain no "inventive concept," *i.e.*, an element or combination of elements sufficient to transf8orm the claimed abstract idea into patent-eligible subject matter.

See Alice, 134 S. Ct. at 2355 ("We have described step two of this analysis as a search for an inventive concept -- *i.e.*, an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the ineligible concept itself.") (internal quotation marks and brackets omitted). Rather, the claims do nothing more than state the abstract idea to be applied using a generic "computer." *See Alice*, 134 S. Ct. at 2357-60 (implementing abstract idea on conventional computers does not impart patent eligibility); *OIP Techs., Inc. v. Amazon.com, Inc.*, 788 F.3d 1359, 1363 (Fed. Cir. 2015) (invalidating claims directed to implementing abstract idea "on a generic computer").

1. Independent Method Claim 1 Fails To Recite an Inventive Concept

The only conceivable technical or computer-related element in claim 1 is the generic "computer" for performing the algorithm, which the PTO had incorrectly deemed sufficient to confer patent eligibility before *Alice* clarified the law. *See Accenture Global Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1345 (Fed. Cir. 2013) ("the important inquiry for a § 101 analysis is to look to the claim"), *cert. denied* (2014). Given that the claim lacks any information about how the computer is programmed to perform the algorithm, it imparts no "inventive concept" to the abstract idea. *See Alice*, 134 S. Ct. at 2357 ("the computer implementation did not supply the necessary inventive concept … simply implementing a mathematical principle on a physical machine, namely a computer, [i]s not a patentable application of that principle."); *Dealertrack*, 674 F.3d at 1333 (ineligible claims failed to "specify how the computer [components] are specially programmed to perform" the abstract idea of an information clearinghouse).

The specification likewise does not purport to describe any new or inventive computer. The only references to a "computer" in the patent do not contemplate anything more than a generic and conventional computer. *See* '710 patent at 5:21-

23 ("Obviously, the mathematical calculations set forth herein may be executed by various computer programming languages"), 4:4-11 (mentioning "computer graphics" and "a computer graphic image"), 4:37-39 (mentioning "computer monitor"), 7:27-28; *Williamson v. Citrix Online, LLC, et al.*, No. CV 11-02409 SJO (JEMx), slip op. at 13 (C.D. Cal. Feb. 17, 2016) ("the preferred embodiment of the invention uses 'industry-standard personal computer systems' … Given the ubiquity of computers, wholly generic computer implementation is not generally the sort of 'additional featur[e]' that provides any 'practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself.'").

Finally, considered "as an ordered combination," the recited elements (including the "computer" element) of claim 1 add nothing to the steps considered separately. *See Alice*, 134 S. Ct. at 2359. Thus, viewed as a whole, method claim 1 simply recites a mathematical algorithm performed by a generic computer. *See id*. ("In short, each step does no more than require a generic computer to perform generic computer functions.").

2. Dependent Method Claims 2-6 Also Do Not Contain Any Inventive Concept[9]

Claims 2-6 also recite patent-ineligible mathematical algorithms, which either include an added step in the mathematical algorithm recited in claim 1 or describe the environment for the mathematical calculations. Also similar to claim 1, claims 2-6 recite nothing more than a generic computer on which the mathematical algorithm executes.

Claim 2 extends the "comparing" and "deriving" steps of the mathematical

[9] Although Plaintiff is only asserting claim 1 according to his infringement contentions, *see* ECF No. 22 Ex. 100, ECF No. 24 Ex. 200, ECF No. 25 Ex. 300, all of the claims of the '710 patent are addressed here for completeness, as all suffer from the same defect.

algorithm in claim 1 by reciting that, where the length of the first vector is less than the length of the second vector, the first pixel is a highlight point, and the second pixel is the shadow point, which the specification describes as "mathematical calculations." *See* '710 patent at 5:19-21 ("point (3.3, 6.7, 0.0) is a highlight point; point (3.218, 6.75, 0.0) is a shadow point … the ***mathematical calculations*** set forth herein") (emphasis added). Because claim 2 is an abstract idea itself, it cannot supply an inventive concept. *See Hewlett Packard Co. v. ServiceNow, Inc.*, No. 14-cv-00570, 2015 WL 1133244, at *6 (N.D. Cal. Mar. 10, 2015) ("this claim limitation certainly cannot supply an inventive concept to render the abstract idea patent-eligible … this limitation is in itself an abstract idea, and so is not patentable on its own").

Claim 3 recites that the generic "computer" is a generic "electronic computer," which cannot supply an inventive concept. *See Alice*, 134 S. Ct. at 2358 ("mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention").

Claim 4 extends the "calculating a particular steradian region of space" step of the mathematical algorithm in claim 1 by further calculating "a particular rotation angle position of said steradian region of space" and "a particular azimuth angle position of said steradian region of space," both of which are described as "mathematical formula" in the specification. *See, e.g.*, '710 patent at 3:27-36 ("Rotation angle (12) and rotation angle (15) can be calculated using a vector dot product. The following illustrates the ***mathematical formula*** for the vector dot product where … theta equals the angle between vector(a) and vector(b): **cos(theta)=(*ai**bi+*aj**bj+*ak**bk)/(length*a**length*b*))**") (emphasis added). Because claim 4 is an abstract idea itself executing on a generic computer, it does not supply an inventive concept. *See Hewlett Packard Co.*, 2015 WL 1133244, at *6 (claim element cannot supply inventive concept when it is itself an abstract idea).

Claim 5, similar to claim 4, extends the "calculating a particular steradian

region of space" step of the mathematical algorithm in claim 1 by further calculating "a steradian row index" and "a steradian column index" executing on a generic computer, *see* '710 patent at 14:18-22, none of which supply an inventive concept.

Claim 6 merely recites a coordinate system for the "rotation angle" and "azimuth angle." *See id*. at 14:23-26. Since every angle is referenced to a coordinate system for its location and position, the coordinate system is merely an existing, well-known, conventional abstraction that does not supply an inventive concept. *See Content Extraction,* 776 F.3d at 1348 ("There is no 'inventive concept' in … well-understood, routine, and conventional activities commonly used in industry.").

IV. CONCLUSION

Based on the foregoing, Defendants Autodesk, Inc., NVIDIA Corp., and Pixar respectfully request that the Court grant this motion to dismiss pursuant to Fed. R. Civ. P 12(b)(6) for failure to state a claim for patent infringement due to the lack of patentable subject matter as required by 35 U.S.C. § 101. Since this defect cannot be cured by any amendment of the pleading, the Complaint should be dismissed with prejudice.

Dated: May 13, 2016

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CERTIFICATE OF SERVICE

I hereby certify that on the 13th day of May, 2016, I electronically filed the foregoing document, Defendants' Memorandum of Points and Authorities in Support of Notice of Motion and Motion to Dismiss Pursuant to Fed. R. Civ. P. 12(b)(6) for Lack of Patentable Subject Matter Under 35 U.S.C. § 101 with the Clerk of the Court using the CM/ECF system, which will then send a notification of such filing (NEF) to the following attorneys of record who have consented to accept this Notice as service of this document by electronic means:

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